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546D27  
treating smaller pieces of meat with one or more edible salts in order to form a layer with solubilized proteins on the surface of the smaller pieces of meat;

decreasing the pH of the layer with solubilized proteins by mixing an acidifying agent with the pieces of meat

10 B1 and  
[, holding the pieces of meat against each other to form the coherent piece of meat, and] thereby selectively denaturing and coagulating the solubilized proteins such that the smaller pieces of meat are mutually joined but themselves substantially retain the properties of unprocessed raw meat because proteins present  
15 in the smaller pieces of meat substantially do not denature; and

holding the pieces of meat against each other to form the coherent piece of meat.

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In claim 4, line 4 delete "considerably".

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B2  
18. (Twice Amended) A coherent piece of meat formed from smaller pieces of raw meat joined by a denatured and coagulated solubilized protein produced according to the method of claim 1.

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#### REMARKS

Claims 1-17 and 19-22 stand rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness due to the recitations of the term "robust" in claim 1 and the term "considerably" in claim 4. Each of these terms has been deleted from the respective claims, thereby overcoming the indefiniteness rejection.

Claims 1, 2, 4-7, 9-15, 17, 18, 21 and 22 stand rejected under 35 U.S.C. § 102(b) for anticipation by U.S. Patent No. 3,740,235 to Weiner. Claims 1, 2, 4-7, 9-15, 18, 21 and 22 stand rejected under 35 U.S.C. § 102(b) for anticipation by U.S. Patent No. 4,680,183 to van Schouwenburg. Claims 3, 8, 16, 19 and 20 stand rejected under 35 U.S.C. § 103(a) for obviousness over the Weiner or the van Shouwenburg patent. Each of these rejections is traversed in view of the amendments to claims 1 and 18 and for the following reasons.

The present invention includes a method of manufacturing a coherent piece of meat from smaller pieces of meat having the steps of mixing small pieces of meat with salts to form a layer of solubilized proteins on the small pieces of meat, decreasing the pH in the layer of solubilized proteins by mixing acid with the small pieces of meat thereby selectively denaturing and coagulating the solubilized proteins and holding the pieces of meat together to form a coherent piece of meat. A critical aspect of the present invention is the use of an acidifying agent to lower the pH of the layer of the solubilized proteins which denatures and coagulates the solubilized proteins. A decrease in pH occurs only in the layer of solubilized proteins and at the surface of the pieces of meat but not within the interiors of the pieces of meat. The acidifying agent lowers the pH in the layer of solubilized proteins by 0.5 to 3, preferably, 0.75 to 3, more preferably, about 1 to 2. By carefully decreasing the pH in the layer of solubilized proteins, the pH of the complete mass of the meat is minimally decreased so that

proteins other than those in the layer of solubilized proteins do not denature and so that the flavor of the meat is unaffected.

Claim 1 has been amended to specify the step of decreasing the pH of the layer of the solubilized proteins by mixing an acidifying agent with the pieces of meat thereby selectively denaturing and coagulating the solubilized proteins. The subject matter of claim 2 is essentially included in claim 1 as amended, hence, claim 2 is canceled. Claim 18 is amended to depend from claim 1.

Neither of the cited references teaches or suggests use of an acidifying agent to decrease the pH of the layer of solubilized proteins thereby selectively denaturing or coagulating the solubilized proteins. In particular, the Weiner patent discloses a method of forming uncooked meat by (1) adding to small pieces of meat a binder (formed of proteins), salt and water, (2) placing the mixture into a container and (3) heating the container to a temperature of 100°F. There is no suggestion to add any acidifying agent to the meat mixture much less to decrease the pH of any solubilized proteins. The Weiner patent does not contemplate controlling the pH of the meat. In the absence of any suggestion to add an acidifying agent to the meat mixture formed in the method disclosed in the Weiner patent, claim 1 and dependent claims 3-22 which include all the limitations of claim 1 are not anticipated or rendered obvious by the Weiner patent.

The van Schouwenburg patent likewise discloses a method for making a food product from pieces of meat having the steps of (1) adding salts to the pieces of meat to solubilize proteins

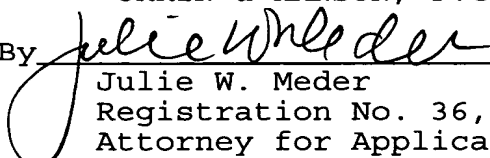
in the meat, (2) shaping the mixture and (3) heating the mixture to coagulate the solubilized proteins. There is no teaching or suggestion to add an acidifying agent to decrease the pH of the solubilized proteins, thereby denaturing and coagulating the proteins. The pH of the solubilized proteins is not considered anywhere in the van Schouwenburg patent, hence, it does not teach or suggest decreasing the pH of the layer with solubilized proteins by mixing an acidifying agent with the pieces of meat. The patent does disclose the addition of ascorbic acid as a coloring in the amount of 0.05%. The method of the present invention may also include addition of sodium ascorbate as disclosed in Example 1 on page 12, line 14 of the specification. The addition of the ascorbic acid or sodium ascorbate does not cause the pH of the layer of solubilized proteins to decrease within the scope of the claimed invention. Because claim 1 is not taught or suggested by the van Schouwenburg patent, neither are dependent claims 3-22.

Claims 1 and 3-22 are believed to define over the prior art of record and be in condition for allowance. Reconsideration of the rejections and allowance of claims 1 and 3-22 are respectfully requested.

Respectfully submitted,

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